

REMARKS

Claims 1, 3-10 and 12-19 are pending in the subject application. Claim 1 is currently amended to clarify that component (b) is selected from the group consisting of 1,3-butadiene, 1,4-pentadiene, 1,5-hexadiene, and 1,7-octadiene. Claims 6 and 7, while currently withdrawn, have been amended in the same manner. Support for the currently amended claims can be found at least in paragraphs [0009], [0019] and [0021]-[0023] of the subject application as published (specifically, U.S. Publ. Pat. Appl. No. 2006/0104929). As such, no new matter is introduced via the present Amendment. Claims 6, 7 and 16-19 were previously withdrawn. Claims 2 and 11 were previously canceled. No claims are canceled or added via the present Request/Response.

Claims 1, 3-5, 8-10, and 12-15 stand rejected under 35 USC 112, first paragraph. These rejections are based on the previous claim language of claim 1, and are now moot in view of the present amendment to claim 1. As such, the Applicants respectfully assert that these rejections should be withdrawn.

Claims 1, 3-5, 8-10, and 12-15 also stand rejected under 35 USC 112, second paragraph. In relevant part, the Examiner asks for clarification of the structure of component (A) on page 3 of the instant Office Action. As stated in MPEP §2713.04, breadth of a claim is not to be equated with indefiniteness. That being said, the Applicants respectfully assert that further clarity is not necessary for purposes of 35 USC 112, second paragraph, because the claimed invention is understood by one skilled in the art, i.e., component (A) is the reaction product formed from the reaction of components (a) and (b). As the Examiner can surely appreciate, the chemical art is often referred to as an unpredictable art. Along these lines, chemical reactions

typically have a certain level of unpredictability, especially with regard to a distribution of various reaction products based on amounts of reactants, reaction conditions, etc. By way of example, the Applicants direct the Examiner to Practical Example 4, which clearly illustrates an example of component (A) formed from 1,5-hexadiene (b) and a dimethylpolysiloxane (a). The Examiner clearly understood the claimed invention enough to issue additional rejections of the claims described hereafter. As such, the Applicants respectfully assert that these rejections should be withdrawn.

Claims 1, 3-5, 8-10 and 12-15 also stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 6,013,682 to Dalle et al. (the ‘682 patent) in view of Lochhead, Robert Y., “Encyclopedia of Polymers and Thickeners for Cosmetics,” Cosmetics and Toiletries, 108 (1993) (hereinafter “Lochhead”) and U.S. Pat. No. 5,270,424 to Drake et al. (the ‘424 patent). Claims 1, 3-5, 8-10 and 12-15 also stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the ‘682 patent in view of Lochhead and the ‘424 patent and further in view of U.S. Pat. No. 4,620,878 to Gee (the ‘878 patent). The Applicants respectfully assert that the Examiner has not properly established a prima facie case of obviousness such that the rejections are improper and should be withdrawn.¹

The Examiner relies upon the ‘682 patent as the primary reference in each of the rejections set forth above. In relying on the ‘682 patent, the Examiner contends that the ‘682 patent discloses “component A of the instant claims” on page 5 of the instant Office Action. However, this is clearly not correct based at least on the previous amendment to claim 1, and as even confirmed by the Examiner’s own statements on page 6 of the instant Office Action where

¹ For sake of brevity, the Applicants do not repeat all of the previous arguments put forth in their previous Amendment. In doing so, the Applicants do not concede to any of the Examiner’s assertions or interpretations.

the Examiner states that the '682 patent uses a monomer with only two carbons. Based on this discrepancy in the Examiner's assertions, the Applicants respectfully ask the Examiner for clarification of this position.

In view of Applicants' previous amendment and also the instant clarifying amendment, claimed component (A) of the subject application is formed from (a) a diorganopolysiloxane having silicon-bonded hydrogen atoms at the two ends of the molecular chain and (b) a diolefin. The diolefin selected from the group consisting of 1,3-butadiene, 1,4-pentadiene, 1,5-hexadiene, and 1,7-octadiene. In no way does the '682 patent teach or suggest use of such a diolefin.

To the contrary, it is clear that the '682 relies on organosilicon materials to react with its polysiloxanes. The Examiner relies on the presence of a vinyl group in the organosilicon materials of the '682 patent to attempt to equate the number of carbon atoms present in such a functional group (i.e., two carbon atoms) with that of the diolefins specifically claimed in the present invention. However, such organosilicon materials merely having vinyl group(s) are starkly different than the diolefins claimed for the present invention (as described in the Applicants' previous Amendment) and to one of skill in the art, clearly result in a different reaction product than the reaction product claimed here. In addition, it is clear from the teachings of the '682 patent that polysiloxanes are preferably used as the organosilicon material. As such, the '682 patent fails to teach or even suggest the use of materials other than those that include silicon atoms within their own structure.

The Examiner then relies, in error, on the '424 patent in an attempt to address this deficiency of the '682 patent. The '424 patent generally teaches the reaction of silicon compounds having a SiH group with dienes. However, the '424 patent focuses on use of

chlorosilanes rather than diorganopolysiloxanes (see, e.g. column 2, lines 58-64, all Examples, and claim 6 of the '424 patent), and is most focused on its specific catalyst. The '424 merely teaches that other compounds can also be used. As such, even if for arguments sake one skilled in the art would refer to the teachings of the '424 patent, they would clearly choose to use chlorosilanes in combination with dienes rather than diorganopolysiloxanes in combination with dienes, as like claimed in the subject application.

On page 7 of the instant Office Action, the Examiner attempts to explain why the present invention is obvious in view of the '682 patent and the '424 patent. The Examiner states that “depending on the intended use of the prepared polymer and the desired properties of the polymer ... the alteration of the length of the alkylene units can provide polymers with the desired properties”. However, the Examiner still has not provided any articulated reasoning on why one skilled in the art would make such a substitution in the manner that the Examiner is asserting. For example, what is the “intended use”?, what is the “desired property”?, etc.

The Applicants respectfully caution the Examiner in using statements that appear to be merely conclusory when addressing the alleged obviousness of a claim or claims (see, e.g., MPEP §2142). Here, the Examiner has merely stated that which is true for all polymers, both old and those yet to be discovered, i.e., changing a polymer changes its properties. Under the Examiner's line of reasoning, at what point would a polymer, or any chemical compound for that matter, which is being structurally modified, not be obvious?

The same is true for the Examiner's optimization statements on page 8 of the instant Office Action. What does the Examiner contend is being optimized? Optimization must be related to an end goal. What is this goal that the Examiner envisions? Based on the lack of articulated reasoning with respect to the alleged obviousness of the present invention, as well as the lack of teaching or suggestion in the art itself, the Applicants respectfully submit that the rejections are improper and must be withdrawn.

In addition, the Applicants note that neither of the Examiner's other references, i.e., neither Lochhead nor the '878 patent, remedy the deficiencies of the '682 patent and the '424 patent with respect to claimed component (A). In particular, the Examiner relied on Lochhead merely for purposes relating to claimed component (B). The Examiner relied on the '878 patent merely for purposes relating to the particle size of the emulsion. Moreover, regardless of the reasons for which the Examiner relied on these secondary references, these references fail to disclose, teach, or even suggest a linear organosilicon polymer which is formed from (a) a diorganopolysiloxane having silicon-bonded hydrogen atoms at the two ends of the molecular chain and (b) a diolefin selected from the group of 1,3-butadiene, 1,4-pentadiene, 1,5-hexadiene, or 1,7-octadiene, as claimed in the subject application.

In view of the foregoing, the Applicants respectfully submit that independent claim 1, is both novel and non-obvious, in view of the disclosure, teachings, and suggestions of the prior art such that claim 1, as well as the claims that depend therefrom, are in condition for allowance.

While it is believed that no additional fees are presently due, the Commissioner is authorized to charge the Deposit Account No. 08-2789, in the name of Howard & Howard Attorneys PLLC for any fees or credit the account for any overpayment.

Respectfully submitted,

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